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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
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10/647,708

08/25/2003

Lung-Yi Chueh

251310-1070

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01/12/2005

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EXAMINER

LAXTON, GARY L

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/647,708 | <b>Applicant(s)</b><br>CHUEH ET AL. |  |
|                              | <b>Examiner</b><br>Gary L. Laxton    | <b>Art Unit</b><br>2838             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/25/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Specification*

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Wojciechowski (US 5,841,703).

Claim 1; Wojciechowski disclose a voltage regulating device for a charging pump, wherein the charging pump outputs an output voltage according to a clock signal while the voltage regulating device comprises: a voltage regulating capacitor (541 or 554 or 555) whose

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one terminal is coupled to an output terminal of the charging pump (503) while the other terminal receives an inverse clock signal (clock 2, 3 or 4).

Claim 2; wherein the charging pump outputs the output voltage to a load ( $V_{out}$ ) while the capacitance of the voltage regulating capacitor is smaller than the capacitance of the load.

Claim 3; the charging pump is two-phase.

4. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al (US 6,670,844).

Claim 1; Kobayashi et al disclose a voltage regulating device for a charging pump, wherein the charging pump outputs an output voltage according to a clock signal while the voltage regulating device comprises: a voltage regulating capacitor ( $C_4$ ) whose one terminal is coupled to an output terminal of the charging pump (point C) while the other terminal receives an inverse clock signal ( $\Phi_n$ ).

Claim 2; wherein the charging pump outputs the output voltage to a load ( $V_o$ ) while the capacitance of the voltage regulating capacitor is smaller than the capacitance of the load.

Claim 3; the charging pump is two-phase.

5. Claims 4 and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by Oku (US 6,525,595).

Claim 4; Oku discloses a voltage regulating device for a charging pump, wherein the charging pump outputs an output voltage according to a first clock signal (CLK 1), a second clock signal (CLK 2), a third clock signal (CLK 3), and a fourth clock signal (CLK 4) while the

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voltage regulating device comprises: a first voltage regulating capacitor (C5) whose one terminal is coupled to an output terminal of the charging pump while the other terminal receives a first inverse clock signal (CLK 5); a second voltage regulating capacitor (C6) whose one terminal is coupled to the output terminal of the charging pump while the other terminal receives a second inverse clock signal (CLK 6); a third voltage regulating capacitor (C7) whose one terminal is coupled to the output terminal of the charging pump while the other terminal receives a third inverse clock signal (CLK 7); and a fourth voltage regulating capacitor (C8) whose one terminal is coupled to the output terminal of the charging pump while the other terminal receives a fourth inverse clock signal (CLK 8).

Claim 5; wherein the charging pump outputs the output voltage to a load ( $V_{pp}$ ) while the capacitance of the first, the second, the third and the fourth capacitor is smaller than the capacitance of the load.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,538,930 Ishii et al disclose a charge pump circuit.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (571) 272-2079. The examiner can normally be reached on Monday thru Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 1/7/05  
Gary L. Laxton  
Patent Examiner  
Art Unit 2838